

RAW SEQUENCE LISTING  
 PATENT APPLICATION NO: US/09/817,387  
 DATE: 04/11/2001  
 TIME: 14:01:12

Input Seq : A:\PTO.LXL  
 Output Seq : N:\CRF3\04112001\I817387.raw

P.S

1 <110> APPLICANT: Max-Medbiotech GmbH for Molecular Medizin  
 2 <120> TITLE OF INVENTION: Oligonucleotides and the Use Thereof  
 3 <130> NAME PREFERRED: 101105-21

C > 9 <110> CURRENT APPLICATION NUMBER: US/09/817,387

C > 10 <111> CURRENT FILING DATE: 2001-03-26

12 <150> PRIOR APPLICATION NUMBER: DE 197 20 151.2

13 <151> PRIOR FILING DATE: 1997-03-02

15 <160> NUMBER OF SEQ ID NOS: 20

17 <170> SOFTWARE: Seq. 2.0a Ver. 2.1

19 <210> SEQ ID NO: 1

20 <211> LENGTH: 31

21 <212> TYPE: DNA

22 <213> ORGANISM: Artificial Sequence

24 <220> FEATURE:

25 <221> OTHER INFORMATION: Description of Artificial Sequence:

26 oligonucleotide, linkages between positions 1 to

27 20 are phosphorothioates, linkages between

28 positions 20 to 31 are phosphodiester

30 <400> SEQUENCE 1

31 tcaattagt actgttcaga gttagggtta g

31

34 <210> SEQ ID NO: 2

35 <211> LENGTH: 25

36 <212> TYPE: DNA

37 <213> ORGANISM: Artificial Sequence

39 <220> FEATURE:

40 <221> OTHER INFORMATION: Description of Artificial Sequence:

41 oligonucleotide, linkages between positions 1 to

42 20 are phosphorothioates, linkages between

43 positions 20 to 25 are phosphodiester

45 <400> SEQUENCE 2

46 tcaattagt actgttcaga gttag

25

49 <210> SEQ ID NO: 3

50 <211> LENGTH: 33

51 <212> TYPE: DNA

52 <213> ORGANISM: Artificial Sequence

54 <220> FEATURE:

55 <221> OTHER INFORMATION: Description of Artificial Sequence:

56 oligonucleotide, linkages between positions 1 to

57 20 are phosphorothioates, linkages between

58 positions 20 to 33 are phosphodiester

60 <400> SEQUENCE 3

61 tcaattagt actgttcaga caqtagggt tag

33

64 <210> SEQ ID NO: 4

65 <211> LENGTH: 31

66 <212> TYPE: DNA

67 <213> ORGANISM: Artificial Sequence

69 <220> FEATURE:

ENTERED

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/817,387

DATE: 04/11/2001

TIME: 14:01:12

Input Seq : A:\PEO.txt

Output Seq : N:\CRF3\04112001\I817387.raw

```

70 <223> OTHER INFORMATION: Description of Artificial Sequence:
71     oligonucleotide, linkages between positions 1 to
72     20 are phosphorothioates, linkages between
73     positions 20 to 31 are phosphodiesters
75 <400> SEQUENCE: 4
76 tcagattagg actgtcaga gtaapcag          31
79 <210> SEQ ID NO: 5
80 <211> LENGTH: 25
81 <212> TYPE: DNA
82 <213> ORGANISM: Artificial Sequence
84 <220> FEATURE:
85 <223> OTHER INFORMATION: Description of Combined DNA/RNA Molecule:
86     oligonucleotide, linkages between positions 1 to
87     19 are phosphorothioates, linkages between
88     positions 19 to 25 are phosphodiesters
90 <220> FEATURE:
91 <223> OTHER INFORMATION: positions 20 to 25 carry 2'-OCH3 modified ribosyl
92     residues
94 <400> SEQUENCE: 5
95 tcagattagg actgtcaga guuag          25
98 <210> SEQ ID NO: 6
99 <211> LENGTH: 27
100 <212> TYPE: DNA
101 <213> ORGANISM: Artificial Sequence
103 <220> FEATURE:
104 <223> OTHER INFORMATION: Description of Combined DNA/RNA Molecule:
105     oligonucleotide, linkages between positions 1 to 20
106     are phosphorothioates, linkages between
107     positions 20 to 27 are phosphodiesters,
109 <220> FEATURE:
110 <223> OTHER INFORMATION: positions 21 to 27 carry 2'-OCH3 modified ribosyl
111     residues
113 <400> SEQUENCE: 6
114 tcagattagg actgtcaga uaguuag          27
117 <210> SEQ ID NO: 7
118 <211> LENGTH: 35
119 <212> TYPE: DNA
120 <213> ORGANISM: Artificial Sequence
122 <220> FEATURE:
123 <223> OTHER INFORMATION: Description of Combined DNA/RNA Molecule:
124     oligonucleotide, linkages between positions 1 to
125     19 are phosphorothioates, linkages between
126     positions 19 to 35 are phosphodiesters,
128 <220> FEATURE:
129 <223> OTHER INFORMATION: positions 21 to 35 carry 2'-OCH3 modified ribosyl
130     residues
132 <400> SEQUENCE: 7
133 tcagattagg actgtcaga guuagggta gacaa          35
136 <210> SEQ ID NO: 8

```

RAW SEQUENCE LISTING  
 PATENT APPLICATION: US/09/817,387  
 DATE: 04/12/2001  
 TIME: 14:01:12

Input Set : A:\PTO.txt  
 Output Set : M:\CRF\04112001\1817387.raw

137 <211> LENGTH: 30  
 138 <212> TYPE: DNA  
 139 <213> ORGANISM: Artificial Sequence  
 141 <220> FEATURE:  
 142 <223> OTHER INFORMATION: Description of Artificial Sequence:  
 143 oligonucleotide, linkages between positions 1 to  
 144 15 are phosphorothioates, linkages between  
 145 positions 15 to 17, 19 to 23 and 25 to 30 are  
 W--> 146 phosphodiesters,  
 148 <220> FEATURE:  
 149 <223> OTHER INFORMATION: linkages between positions 17 to 19 and 23 to 25  
 150 are 100% phosphoramidates  
 151 <400> SEQUENCE: 30  
 152 tcagattagt actgtgcaga ggttagacaa  
 156 <210> SEQ ID NO: 9  
 157 <211> LENGTH: 34  
 158 <212> TYPE: DNA  
 159 <213> ORGANISM: Artificial Sequence  
 161 <220> FEATURE:  
 162 <223> OTHER INFORMATION: Description of Combined DNA/RNA Molecule:  
 163 oligonucleotide, linkages between positions 1 to  
 164 15 are phosphorothioates, linkages between  
 165 positions 15 to 20 are phosphodiesters,  
 167 <220> FEATURE:  
 168 <223> OTHER INFORMATION: position 21 n(L)= linker is  
 169 3'-O(PO2)GCH2CH(CH2COOH)-(CH2)4-NH-,  
 171 <220> FEATURE:  
 172 <223> OTHER INFORMATION: linkages between positions 22 to 34 are  
 173 [N-(2-aminoethyl)glycine] methylene carbonyl  
 174 residues  
 176 <400> SEQUENCE: 9  
 W--> 177 tcagattagt actgtgcaga ntagggttag acaa 34  
 180 <210> SEQ ID NO: 10  
 181 <211> LENGTH: 31  
 182 <212> TYPE: DNA  
 183 <213> ORGANISM: Artificial Sequence  
 185 <220> FEATURE:  
 186 <223> OTHER INFORMATION: Description of Artificial Sequence:  
 187 oligonucleotide, linkages between positions 1 to  
 188 20 are phosphorothioates, linkages between  
 189 positions 20 to 31 are phosphodiesters,  
 191 <220> FEATURE:  
 192 <223> OTHER INFORMATION: position 31 is represented by  
 193 3'-azido-2',3'-dideoxyguanosine  
 195 <400> SEQUENCE: 10  
 196 tcagattagt actgtgcaga gttagggtta g 31  
 199 <210> SEQ ID NO: 11  
 200 <211> LENGTH: 28  
 201 <212> TYPE: DNA

## RAW SEQUENCE LISTING

PARENT APPLICATION: US/09/017,387

DATE: 04/11/2001

FILE: 110112

Input File: A:\PRO.CXC

Output File: N:\REF\84112001\1817387.raw

```

201 <210> ORGANISM: Artificial Sequence
202 <220> FEATURE:
203 <233> OTHER INFORMATION: Description of Artificial Sequence:
204     oligonucleotide, linkages between positions 1
205     to 26 are phosphorothioates, linkages between
206     positions 26 to 29 are phosphodiester
W--> 207 <230> phosphorothioates
208 <230> FEATURE:
209 <233> OTHER INFORMATION: position 28 is modified by a 3' aminodeoxyribosyl
210     residue
211 <230> FEATURE:
212 <233> OTHER INFORMATION: position 28 is modified by a 3' aminodeoxyribosyl
213     residue
214 <210> SEQ ID NO: 12
215 <211> LENGTH: 29
216 <212> TYPE: DNA
217 <213> ORGANISM: Artificial Sequence
218 <220> FEATURE:
219 <233> OTHER INFORMATION: Description of Combined DNA/RNA Molecule:
220     oligonucleotide
221 <220> FEATURE:
222 <233> OTHER INFORMATION: Description of Artificial Sequence:
223     oligonucleotides, linkages between positions 1
224     to 18 are phosphorothioates, linkages between
225     positions 18 to 26 are phosphodiester
226 <220> FEATURE:
227 <233> OTHER INFORMATION: positions 19 to 29 carry 2'-OCH3 modified ribosyl
228     residues
229 <220> FEATURE:
230 <233> OTHER INFORMATION: linkages between positions 26 to 29 are
231     phosphorothioates
232 <210> SEQUENCE: 12
233     tcttcgagcg tgcgcatgu uagggguag
234 <210> SEQ ID NO: 13
235 <211> LENGTH: 25
236 <212> TYPE: DNA
237 <213> ORGANISM: Artificial Sequence
238 <220> FEATURE:
239 <233> OTHER INFORMATION: Description of Artificial Sequence:
240     oligonucleotides, linkages between positions 1
241     to 15 are phosphorothioates,
242 <220> FEATURE:
243 <233> OTHER INFORMATION: linkages between 17 to 22 are modified by
244     [N-(2-aminoethyl)glycine]methylene carbonyl
245     residues
246 <220> FEATURE:
247 <233> OTHER INFORMATION: position 16 n(L)= linker is
248     O(PO2)-OCH2-CH-(CH2COOH)-(CH2)4-NH-
249 <210> SEQUENCE: 13
W 250 atgtatgctg tggctngtta ggagg

```

28

29

25

DATA: 04/11/2000  
PLM1: 14:01:12

[illegible]

**Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.**

## VERIFICATION SUMMARY

DATE: 01/11/2001

PATENT APPLICATION: US/99/817,387

TIME: 14:01:13

Input File: A:\PTO.txt

Output File: H:\CREF\04112681\I817387Law

L:9 M:270 C: Current Application number differs, Reported Current Application Number

L:10 M:271 C: Current Filing Date differs, Reported Current Filing Date

L:146 M:259 W: Allowed number of lines exceeded, &lt;223&gt; Other Information:

L:177 M:258 W: Mandatory Feature missing, &lt;211&gt; not found for SEQ ID#19

L:177 M:258 W: Mandatory Feature missing, &lt;212&gt; not found for SEQ ID#19

L:177 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#19

L:209 M:259 W: Allowed number of lines exceeded, &lt;213&gt; Other Information:

L:266 M:258 W: Mandatory Feature missing, &lt;211&gt; not found for SEQ ID#17

L:266 M:258 W: Mandatory Feature missing, &lt;212&gt; not found for SEQ ID#17

L:266 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#17

L:354 M:258 W: Mandatory Feature missing, &lt;211&gt; not found for SEQ ID#17

L:354 M:258 W: Mandatory Feature missing, &lt;212&gt; not found for SEQ ID#17

L:354 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#17

L:431 M:258 W: Mandatory Feature missing, &lt;211&gt; not found for SEQ ID#20

L:431 M:258 W: Mandatory Feature missing, &lt;212&gt; not found for SEQ ID#20

L:431 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#20

L:454 M:258 W: Mandatory Feature missing, &lt;211&gt; not found for SEQ ID#21

L:454 M:258 W: Mandatory Feature missing, &lt;212&gt; not found for SEQ ID#21

L:454 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#21

L:519 M:258 W: Mandatory Feature missing, &lt;211&gt; not found for SEQ ID# 24

L:519 M:258 W: Mandatory Feature missing, &lt;212&gt; not found for SEQ ID# 24

L:519 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#24